

claim 22, 23, and 24 are added. New dependent claims 25 and 26 are added. The remaining dependent claims are amended to correct dependency. Claims 2-5, 8, 9, 12-15, 17, 18, 20-26 remain for examination.

Basis in the specification for the new claims 22-26 is found at page 5, lines 5-15.

The Examiner has rejected claims 1-2, 4-5 and 7-8 under 35 U.S.C. 103(a) as unpatentable over Boulton (USP 4,985,697) taken with Simone (USP 4,997,374). This amendment cancels without prejudice claims 1, and 7. The disclosures of claim 1, with additional limitations, are found in new claim 22.

Boulton discloses an electronic book educational publishing method using buried reference materials and alternate learning levels. Text from a magnetic tape is displayed one page at a time. A speech synthesizer may be used in place of the display for visually impaired users (title and abstract). The purpose of Boulton's device is to enhance learning by presenting material at one level of comprehension and providing additional explanatory material for words which require a higher level of comprehension (column 2, lines 43-48). The user can obtain hidden references for a particular word by highlighting the word and pressing the appropriate key on a keyboard (column 3, lines 2-6). Voice can be substituted for the visual display using taped audible input (column 4, lines 1-5).

Simone discloses a teaching device with a console unit including a work booklet. The work booklet preferably comprises a plurality of pages connected through a binding so that they can be turned in a manner similar to the pages of a conventional book (column 4, lines 62-65). Each page has apertures or slots aligned with predetermined portions of the visual display. In operation, LEDs adjacent to the words in the work booklet are actuated while the same words are audible reproduced by the audio output assembly (column 6, lines 61-64).

The present invention as presently claimed differs significantly from the disclosures of Boulton taken with Simone. The present invention simply displays a book in both visual and audible modes synchronously. It extends the usefulness of a paperless

book from conditions which require visual attention to conditions when audible attention will suffice, and vice versa. Boulton involves layers of meaning with detailed explanations of particular words. Boulton depends on recorded analog tape rather than the digital system of the present invention.

In fact, Boulton teaches away from the present invention. After describing a system in which the computers could directly accept the digital information from a compact disk. "This type of a system could be used to store books on compact disks and then display them on a personal computer. Efforts continue to reduce the costs of such mass digital storage devices to make them available to the average consumer. Presently, however, none of these digital storage devices are sufficiently economical to replace the hard copy printed book." (column 2, lines 30-36). The present invention does exactly that which Boulton describes as impractical, does it in a portable system, and in addition, adds audible information in synchrony with the visual.

Simone discloses a conventional printed book with conventional pages with the additional property of having LEDs which are illuminated to highlight or call attention to specific words in the text. The words are not formed by the LEDs. This differs significantly from the present invention in which LEDs may be used to form words in the visual display.

There is no teaching in Boulton or Simone to combine these disclosures with the resulting present invention, in fact, such a combination would not result in the present invention, as presently claimed. Accordingly, the Examiner is respectfully requested to withdraw the rejections of claims 1-2, 4, 5, and 7-8.

The Examiner rejected claim 3 under 35 U.S.C. 103(a) as unpatentable over Boulton taken with Simone as applied to claim 1 and further in view of Fukumoto et al (USP 6,380,923). The above comments concerning Boulton and Simone apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claim 3.

The Examiner rejected claim 9 under 35 U.S.C. 103(a) as unpatentable over Boulton taken with Simone as applied to claim 1 and further in view of Reavey et al (USP 5,847,698). The above comments concerning Boulton and Simone apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claim 9.

The Examiner rejected claims 12 and 15 under 35 U.S.C. 103(a) as unpatentable over Boulton taken with Simone as applied to claim 1 and further in view of O'hara et al (USP 6,297,812). The above comments concerning Boulton and Simone apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 12 and 15.

The Examiner rejected claim 13 under 35 U.S.C. 103(a) as unpatentable over Boulton taken with Simone as applied to claim 1 and further in view of Eberhardt et al (USP 6,133,867). The above comments concerning Boulton and Simone apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claim 13.

The Examiner rejected claim 14 under 35 U.S.C. 103(a) as unpatentable over Boulton taken with Simone as applied to claim 1 and further in view of Nobles et al (USP 4,820,167). The above comments concerning Boulton and Simone apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claim 14.

The Examiner rejected claim 16-18 under 35 U.S.C. 103(a) as unpatentable over Boulton taken with Simone as applied to claim 1 and further in view of Reavey et al taken with Wong (Des. 326,446) in view of Hyman et al. (USP 5,495,557). This amendment cancels without prejudice claim 16. The above comments concerning Boulton and Simone apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 16-18.

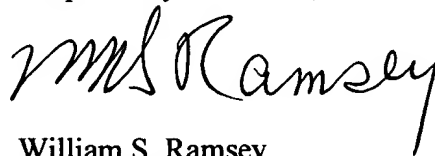
The Examiner rejected claims 19-20 under 35 U.S.C. 103(a) as unpatentable over Boulton. This amendment cancels without prejudice claim 19. The limitations of claim 19 with additional limitations are found in new claim 23. The above comments concerning Boulton apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 19-20.

The Examiner rejected claim 21 under 35 U.S.C. 103(a) as unpatentable over Boulton as applied to claim 19 and further in view of Reavey et al. (USP 5,847,698). The above comments concerning Boulton apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claim 21.

In view of the above, reconsideration and early allowance of the pending claims are earnestly solicited.

The Commissioner is hereby authorized to charge any additional fees which may be required for this amendment, or credit any overpayment, to Deposit Account No. 18-0158. In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 18-0158. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W S Ramsey', written in a cursive style.

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AMEND2

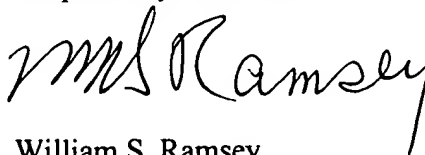
The Examiner rejected claims 19-20 under 35 U.S.C. 103(a) as unpatentable over Boulton. This amendment cancels without prejudice claim 19. The limitations of claim 19 with additional limitations are found in new claim 23. The above comments concerning Boulton apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 19-20.

The Examiner rejected claim 21 under 35 U.S.C. 103(a) as unpatentable over Boulton as applied to claim 19 and further in view of Reavey et al. (USP 5,847,698). The above comments concerning Boulton apply to this rejection. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claim 21.

In view of the above, reconsideration and early allowance of the pending claims are earnestly solicited.

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Respectfully submitted,

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Attachment B. Marked-up Copy of Claims As Previously Amended.

CLAIMS

I claim:

- Cancel* 1. A portable paperless book comprising:
- a digital storage device for visual and audible information, and
 - a display system for displaying visual and audible information from a digital storage device, wherein the visual and audible information is a printed book which appears on the visual display and the printed words are simultaneously read in the audible display.
2. A paperless book of claim ²²1 wherein the display of visual information is a ferroelectric display, electroluminescent display, liquid crystal display, or light emitting diode.
3. A paperless book of claim 2 wherein the display of visual information is in a head-mounted display.
4. A paperless book of claim 2 wherein the display of visual information is in a screen on the paperless book.
5. A paperless book of claim ²²1 wherein the audible information display is produced by headphones, ear phones, speakers permanently attached to the paperless book, or speakers detachably attached to the paperless book.
- Cancel* 7. A paperless book of claim 5 wherein the audible display of the information is generated by artificial speech.
8. A paperless book of claim ²²1 further comprising a switch which activates and deactivates the visual and audible displays.
9. A paperless book of claim ²²1 further comprising an electronic bookmark.

12. A paperless book of claim ²² wherein the digital storage device is a ROM selected from the group of ROM consisting of floppy disk, CD-ROM disk, and DVD disk.

13. A paperless book of claim ²² wherein a highlighted portion of the text indicates an associated visual or audible file.

14. A paperless book of claim ²² further comprising controls which control the speed at which the visual and audible information is scrolled.

15. A paperless book of claim ²² further comprising a control which determines at which point in the sequence of visual and audible information the process of displaying the visual and audible information will begin.

Cancel 16 A paperless book comprising:

a housing,

a central processing unit, battery, ROM reader, permanent memory unit, and temporary memory unit mounted within the housing,

a visual display , power jack, head-mounted visual display housing jack, audible display housing jack , scroll button, select button, play button, stop or pause button, directional control buttons, volume control dial, brightness control dial, door for inserting ROM, and shoulder strap, mounted on the housing,

earphones, connecting wires, and an earphone jack,

the earphone jack connected to the audible display housing jack,

a head-mounted visual display, connecting wire, and visual display jack,

the visual display jack connected to the head-mounted visual display housing jack.

17. The paperless book of claim ²⁴ further comprising an alternating current to direct current converter which plugs into the power jack and provides direct power to the paperless book.

18. The paperless book of claim ~~16~~²⁴ further comprising a digital storage device for visual and audible information, the digital storage device inserted in the ROM loading door in operation.

~~Cancel 19~~ The process of displaying visual and audible information from a digital storage device, wherein the visual and audible information is a printed book which appears on the visual display and the printed words are simultaneously read in the audible display comprising the steps:

- a. downloading visual and audible information from a removable memory storage device, a computer, or a global computer network into a temporary storage site,
- b. displaying a page of printed words from the temporary storage site on a visual display, and
- c. displaying audible expression of the page of printed words of step b. from the temporary storage site on an audible display, the display of audible material simultaneously with the display of visual material.

20. The process of claim ~~19~~²³ wherein the visual and audible information is downloaded from a removable memory storage device.

21. The process of claim ~~19~~²³ further comprising the step:

- d. advancing the visual display to the next page when the audible display corresponding to the displayed page is completed.

New claims 22-26 follow.

22. A portable paperless book comprising:
a visual display system,
an audible display system,
a temporary storage site,
a digital storage system for visual and audible information, and
a power system containing a battery for powering the portable paperless book,
wherein the visual information is a printed book with words electronically
displayed on the visual display for reading and may be electronically erased from the
visual display after the words are read,
controls for the erasure of the visual display after the words are read, and
the audible information is electronically synthesized words of the printed book
which are synthesized in synchrony with the words electronically displayed on the visual
display, wherein the visible information may be read under constantly changing
conditions when the conditions favor visible reading, and the audible information may be

listened to under constantly changing conditions when the conditions favor listening to audible information.

23. The process of displaying information in a portable paperless book

comprising a visual display system, an audible display system, a digital storage system for visual and audible information, a temporary storage site, and a power system containing a battery for powering the portable paperless book, wherein the visual information is a printed book with words electronically displayed on the visual display for reading and may be electronically erased from the visual display after the words are read, controls for the erasure of the visual display after the words are read, and the audible information is electronically synthesized words of the printed book which are synthesized in synchrony with the words electronically displayed on the visual display, wherein the visible information may be read under constantly changing conditions when the conditions favor visible reading, and the audible information may be listened to under constantly changing conditions when the conditions favor listening to audible information comprising the steps:

- a. downloading visual and audible information from a digital storage device into the temporary storage site,
- b. displaying a page of printed words from the temporary storage site on a visual display, and
- c. displaying audible expression of the words of the page of printed words from the temporary storage site on an audible display, the display of audible material simultaneously with the display of words of the page of printed words.

24. A paperless book comprising:

- a housing,
- a central processing unit, ROM reader, permanent memory unit, and temporary memory unit mounted within the housing,

a visual display, power jack, head-mounted visual display housing jack, audible display housing jack, scroll button, select button, play button, stop or pause button, directional control buttons, volume control dial, brightness control dial, door for inserting ROM, and shoulder strap, mounted on the housing,

earphones, connecting wires, and an earphone jack,
the earphone jack connected to the audible display housing jack,

a head-mounted visual display, connecting wire, and visual display jack,
the visual display jack connected to the head-mounted visual display housing jack, and

a battery for powering the paperless book,

wherein audible information is electronically synthesized words of the printed book which are synthesized in synchrony with the words electronically displayed on the visual display,

wherein the visible information may be read under constantly changing conditions when the conditions favor visible reading, and the audible information may be listened to under constantly changing conditions when the conditions favor listening to audible information.

25. The portable paperless book of claim 22 wherein the constantly changing condition which favors visible reading is riding on a train.

26. The portable paperless book of claim 22 wherein the constantly changing condition which favors listening to audible information is driving an automobile.